



Carolina Power & Light Company

SHNPP REGION II  
ATLANTA, GEORGIA

July 10, 1981 81 JUL 20



Mr. J. P. O'Reilly  
Region II  
United States Nuclear Regulatory Commission  
101 Marietta Street, NW  
Atlanta, Georgia 30303

SHEARON HARRIS NUCLEAR POWER PLANT  
UNIT NOS. 1, 2, 3, AND 4  
DOCKET NOS. 50-400, 50-401, 50-402, AND 50-403  
IE BULLETIN 81-03

Dear Mr. O'Reilly:

As requested by IE Bulletin 81-03, "Flow Blockage of Cooling Water to Safety System Components by Corbicula sp. (Asiatic Clam) and Mytilus sp. (Mussel)," Carolina Power & Light Company has evaluated the problem and its applicability to the Shearon Harris Nuclear Power Plant (SHNPP). It has been determined that the potential for biofouling exists since the Asiatic clam is present in the vicinity of the station. The results of seven consecutive years of field biological monitoring programs indicate Corbicula fluminea is present in the Cape Fear River. Corbicula fluminea has also invaded portions of Buckhorn Creek, which is the primary water source for the main reservoir. At present, field observations indicate that these clams inhabit areas of Buckhorn Creek downstream of the main dam. There is no indication that the clams are present in any area of the main reservoir nor are they present in any inflowing headwater streams.

The mussel (Mytilus sp.) does not inhabit any local environments and is probably restricted to coastal habitats which begin many river-miles downstream from the SHNPP.

Corbicula fluminea is expected to eventually be introduced into the Shearon Harris Reservoir; however, any introduction of clams should be detected by the ongoing benthic macroinvertebrate monitoring program. Once a clam population is detected in the reservoir, macroinvertebrate monitoring efforts will be increased in the area of plant intake structures. This monitoring will determine clam population dynamics including spawning periods and organism densities. These studies will give a clear indication of potential biofouling problems due to high clam densities near plant intake structures. At that time, power plant personnel will be informed that the potential for biofouling exists.

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Since at present SHNPP is still in the construction phase and there is no indication that the clams inhabit the reservoir, a control program other than environmental monitoring has not yet been finalized. Several control measures are being evaluated and upon detection of Corbicula fluminea in the reservoir, any protective actions deemed to be necessary will be acted upon.

If you have any further questions on this subject, please contact our staff.

Yours very truly,



E. E. Utley  
Executive Vice President  
Power Supply and  
Engineering & Construction

ONH/jc (N#64)

cc: Director  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Mr. E. Licitra (NRC)

E. E. Utley, having been first duly sworn, did depose and say that the information contained herein is true and correct to his own personal knowledge or based upon information and belief.

  
Notary Public

My commission expires: October 4, 1981

